## BIBLIOGRAPHICAL RECORD.

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Corrections of errors and notices of omissions are solicited.

Cheeseman, T. F. Fertilization of glossostigma. (Nature. 27 Dec. 1877, v. 17, p. 163-164, 15 cm.)

Notice, by H. Müller, entitled "Befruchtung von glossostigma." (Bot. Jahresbericht... Just. 1877, v. 5, p. 746, 2 cm.)

Shows how cross-fertilization is aided by sensitive motion of the stigma,  $W\colon T.$  (2677)

Darwin. C: Bees and fertilization of kidney beans. (Gard. chronicle, 24 Oct. 1857, p. 725, 28 cm.)

Shows how bees [apis mellifica] act while collecting nectar, and believes that "if every bee in Britain were destroyed, we should not again see a pod on our kidney beans." Records the perforation of the flowers for their pollen by bombus and the subsequent use of the perforations by apis.

##: T. (2678)

Darwin, C: Notes on the fertilization of orchids. (Ann. and mag. nat. hist., Sept. 1869, ser. 4, v. 4, p. 141-159.)

A résumé of the literature on the pollination of orchids, since 1862, with original observations by the author; prepared for insertion in the Fr. tr. of his "On the various contrivances by which British and foreign orchids are fertilized by insects..." [Rec., 2378]. The article includes numerous observations on the actions of insects while visiting the flowers in question.

Flahault, C., see Bonnier, G. and C. Flahault. Observations sur les modifications des végétaux ... [Rec., 2675].

Gray, Asa. [Fertilization of flowers by insect agency.] (Proc. acad. nat. sci. Phil., 6 June 1876, v. 28, p. 110-112.)

Crit, rev. of T: Meehan's remarks under same title (op. cit., p. 108-110) [Rec., 2692], W: T. (2680)

Hunt. J. Gibbons. Sensitive organs in stapelia. (Proc. acad. nat. sci. Phil., 27 Aug. 1878, v. 30, p. 292-293, 27 cm.; 1 fig.) Abstract, entitled "Sensitive organs in

Abstract, entitled "Sensitive organs in the flowers of asclepiads." (Pop. sci. rev., Jan. 1879, v. 18, n. s., v. 3, p. 89, 6 cm.) Abstract. (Bull. Torrey bot. club. Dec.

Abstract. (Bull. Torrey bot. club. Dec 1879, v. 6, p. 280, 12 cm.)

Crit. rev., by H. Müller, entitled "Reizbare Organe bei stapelia." (Bot. Jahresbericht . . . Just. 1879, v. 7, p. 139-140, 2 cm.)

The stench of the flowers of s. asterias attracts many flies, which feed on the floral nectar. When the proboscis of a fly comes in contact with one of the so-called staminal glands it is seized by the latter, which is compared to a "steel trap." If too small to remove the pollen-masses, the fly remains in the trap.

W: T. (2681)

Leidy, Joseph. Flies as a means of communicating contagious diseases. (Proc. acad. nat. sci. Phil., 21 Nov. 1871, v. 23, p. 297, 6 cm.)

States that flies feed on the sporiferous mucus of phallus impudicus, and believes them instrumental in spreading hospital gangrene, etc. W: T. (2682)

Lichtenstein, Jules. Les cynipides. 1re partie. Introduction. La génération alternante chez les cynipides par le Dr. H. Adler, de Schleswig, traduit et annoté par J. Lichtenstein. Suivi de la classification des cynipides d'après le Dr. G. Mayr, de Vienne. Montpellier, Coulet, 1881. 141

p., 3 pl., 25×17. Notice, by L. O. Howard, entitled "Alternate generation in *cynipidae*. (Psyche, Mar.-Apr. [June] 1881, v. 3, p. 328-329.)

French translation of H. Adler's "Ueber den Generations-wechsel der Eichen-Gallwespen" (Zeits, für wiss. Zool., 1 Feb. 1881, bd. 35, p 151-246, pl. 10-12), with reprint of the plates, and with an historical introduction by the translator, a biographical notice of Dr. Adler, and a list, classified after Mayr, of the described cynipidae of the world.

L. O. H. (2683)

Macbride, James. On the power of sarracenia adunca to entrap insects . . . . (Trans. Linn. soc., 19 Dec. 1815 [1818], v. 12, p. 48-52.)

45-52:)

Describes the capture of flies by the leaves, to which they are drawn by nectar. Spiders and "a small species of phalaena" are able to enter and leave the pitchers at will. In the mass of putrid insects were always found one or two maggots, which were the offspring of a viviparous fly. From certain insect remains occasionally found, the author suspects that a large nepa may use the pitchers as storehouses for captured prey. [Hagen, Bibl, entom., v. 1, p. 509, gives the date 1857].

W: T. (2684)

Martindale, I: C. On the distribution of plants. (Proc. acad. nat. sci. Phil., 18 Sept. 1877, v. 29, p. 285-286.)

Includes a notice of a *phallus*, which attracts large numbers of flies.

W: T. (2685)

Meehan, T: On the agency of insects in obstructing evolution. (Proc. acad. nat. sci. Phil., 1872, v. 24, p. 235-237.)

Describes a number of floral forms in *linaria vulgaris*. These are prevented from perpetuating themselves as races by being intercrossed through the agency of *bombus*.

W: T. (2686)

Meehan, T: Boring of corollas from the outside by honey-bees. (Proc. acad. nat. sci. Phil., 15 Jan. 1878, v. 30, p. 10-11.)
Crit. rev., by H. Müller, entitled "Die

Honigbiene Blumenkronen von aussen anbohrend." (Bot. Jahresbericht . . . Just. 1879. v. 7. p. 148. 5 cm.)

States that salvia splendens is perforated for its nectar by apis mellifica. States objections to the belief that tar by apis mellificat. States injection the flowers in question are pollinated by insects, W: T. (2587)

Meehan, T: Cross-fertilization in campanula. (Proc. acad. nat. sci. Phil., 18 July 1876. v. 28. p. 142-143. 10 cm.)

States that flowers of campanula and cichorium do not require insect aid in their pollination, although the not require insect and in their permanents latter are visited by pollen-eating insects.

II. T. (2588)

Meehan. T: The droseru as an insect catcher. (Proc. acad. nat. sci. Phil., 20 July 1875. v. 27, p. 330.) (Ann. and mag. nat. hist., Mar. 1876. ser. 4, v. 17, p. 258-259.)

Notes the capture of insects by drosera filiformis, dialogifolia and d. rotundifolia, and discusses the benefit derived therefrom.

W: T. (2689)

Meehan, T: Fertilization in beans. (Proc. acad. nat. sci. Phil., 3 Oct. 1876. v. 28, p. 193-194, 12 cm.)

States that although freely visited by bees [apis?], varieties of phaseolus do not intermingle.

H: T. (2600)

Meehan, T: Fertilization of flowers by insect agency. (Proc. acad. nat. sci. Phil., 6 June 1876, v. 28, p. 108-110.) Crit. rev.. by Asa Gray, under same title.

(op. cit., p. 110-112.)

Believes that scrophularia canina, leucanthemum, trifolium prateuse and staphylea are self-fertilized, though admitting that they are visited by insects.

W: T. (2's)1

Meehan, T: Fertilization of pedicularis canadensis. (Proc. acad. nat. sci. Phil., 3 June 1873. v. 25, p. 287, 8 cm.) (Ann. and mag. nat. hist., Dec. 1873. ser. 4, v. 12. p. 497.)

Self-fertilization is said to be impossible, and no insects were seen to enter the flowers, which, nevertheless, fruited abundantly. A bombus perforates the flowers for their nectar.

W: T. (2502)

Meehan. T: Fertilization of yucca. (Proc. acad. nat sci. Phil., 2 Dec. 1873, v. 25, p. 414. 4 cm.)

States that, in Pennsylvania, yucca is pollinated by pronuba yuccasella, every year. In the Rocky Mountains, in 1871, y. augustifolia was found seeding abundantly, while in 1873 it did not fruit at all; it is suggested that in that region pronuba may be replaced by some produced insort. periodical insect.

Meehan, T. [On the flowers of asparagus.] (Proc. acad. nat. sci. Phil., 4 June 1872, v. 24, p. 138-139.)

The plants of a. officinalis are said to be dioecious. Various insects, including apis mellifica, visit the staminate flowers for pillen. None visit the pistillate flowers. Pollination seemed wholly accomplished by the

Meehan, T: Insectivorous sarracenias. (Proc. acad. nat. sci. Phil., 15 June 1875, v. 27, p. 269, 8 cm.)

Comments on J. H. Mellichamp's "Notes on sarra-cenia variolaris (Proc. Amer. assoc. advanc. sci., 1875, v. 23, pt. 2, p. 113-133) [Rec., 579]. W: T. (2695)

Meehan, T: [Insects and flowers] (Proc. acad. nat. sci. Phil., 2 Aug. 1870, v. 22, p. 90, 6 cm.)

States that salvia and petunia are perforated for their nectar, by bees: but pollination is effected by nocturnal moths. Describes two sorts of male flowers in custanea vesca, only one of which probably aids in fertilization.

W: T. (2696)

Icehan, T: Note on phallus foetidus. (Proc. acad. nat. sci. Phil., 3 Oct. 1876. v. Meehan, T: 28, p. 194-195. 7 cm.)

"Meat flies" abounded on this tungus. The flowers of insects are said to visit and oviposit in the flowers of W: T. (2697)

Meehan. T: Poisonous character of the flowers of wistaria sinensis. (Proc. acad. nat. sci. Phil., 2 June 1874, v. 26, p. 84, 4 cm.)

Notes the popular belief that the flowers of the plant named are destructive to bees. States that the flowers were continually visited by the honey bee [afis mellifica], and others, without, so far as ne could see, any tatal results following,

## T. (2698)

Müller. Fritz. In Blumen gefangene Schwärmer. (Kosmos, 1878. v. 3. p. 178-179.)

Discusses the pollination of Asiatic species of hedychium, as cultivated in Brazil. One species has so narrow a tube that it frequently captures, by their proboscides, such moths as macrosila rustica and m. antaeus.

W: T. (2699)

Muller, Hermann, see Packard, A. S., jr., Moths entrapped by an asclepiad plant [Rec., 1671].

Müller, Hermann. Alpenblumen . . . [Rec., 2175.

Rev., by Francis Darwin, entitled "Alpine flowers." (Nature, 10 Feb., 1881,

v. 23, p. 333-335.) Rev., by W: Trelease, entitled "Dr. Hermann Müller's Alpenblumen." (Psyche. Feb. [July] 1881. v. 3. p. 175. 25 cm.)

B: P. M. (2700)

Müller, Hermann. Anwendung der Dar-winschen Lehre auf Bienen. (Verhandl. naturh. Vereins der preuss. Rheinl. und Westfälens, 1872, jahrg. 29. folge 3. jahrg. 9. p. 1-96. pl. 1-2.)

Discusses the evolution of the various groups of bees as explained by their habits; especially that of providing their young with honey and pollen gathered from flowers.

Müller, Hermann. Befruchtung von glossostigma. (Bot. Jahresbericht . . . Just. 1877. v. 5. p. 746, 2 cm.)

Notice of T. F. Cheeseman's "Fertilization of glossostigma (Nature, 27 Dec. 1877, v. 17, p. 163-164) [Rec., W: T. (2702)

Müller, Hermann. Beobachtungen an westfälischen Orchideen. (Verhandl. des naturhist. Vereins der preuss. Rheinl. und Westfälens, 1868, jahrg. 25, s. 3. jahrg. 5. p. 1-62. pl. 1-2.)

Describes the fertilization of cypripedium calceolus, epipactis viridiforu, e. microphylla, platanthera bifolia, p. chlorantha and p. solstitialis, noting a considerable number of their insect visitors. A number of experiments, in fertilizing orchids with their own pollen in the control of their species are recorded. periments, in fertilizing oremus with that of other species, are recorded.

W: T. (2703)

Müller, Hermann. Ueber die Bluthenformen von salviu prateusis L., und die Bedeutung der weiblichen Stocke. (Bot. Zeitung. 29 Oct. 1880, v. 38, c. 749-750, 21 cm.,

Crit. rev. of II. Potoniés' paper of same title (Sitz-ungsber. Ges. naturf. Freunde, Berlin, 15 June 1880 no. 6, p. 85-92) [Rec., 2720]. #: T. (2704)

Müller, Hermann. Die Honigbiene Blumenkrone von aussen anbohrend. (Bot. Jahresbericht . . . Just. 1879. v. 7. p. 148. 5 cm.)

Crit, rev. of T. Meehan's "Boring of corollas from the outside by honey-bees (Proc. acad. nat, sci. Phil., 15 Jan. 1878, v. 30, p. 10-11) [Rec., 2687].

W: T. (2705)

Müller, Hermann. Nectar, was er ist, und einige seiner Verwendungen. (Bot. Jahresbericht . . . Just. 1879, v. 7, p. 123-125.)

Abstract of W: Trelease's "Nectar, its nature, occurrence, and uses ... [Rec., 2475].

Müller. Hermann. Reizbare Organe bei stapelia. (Bot. Jahresbericht . . . Just, 1879. v. 7, p. 139-140, 2 cm.)

Crit. rev. of J. G. Hunt's "Sensitive organs in sta-pelia (Proc. acad. nat. sci. Phil., 27 Aug. 1878, v. 30, p. 292-293) [Rec., 2681]. W: T. (2707)

Müller. Hermann. Weitere Beobachtungen über Befruchtung der Blumen durch Insekten. 2. (Verhandl. des naturhist. Vereins der preuss. Rheinl. and Westfälens, 1879. jahrg. 36. s. 4. jahrg. 6, p. 198-267, pl. 2-3.)

Ital. tr., with comments. by F. Delpino, entitled "Nuove osservazione sovra piante entomofile." (Rivista bot., 1880, p. 27-39.)

Records additional insect visitors to a large number of flowers, and shows the mode of fertilization in a number not previously studied. [See Rec., 2577.] W: T. (2708)

Myers, A. T. Fertilization of the pansy. (Nature, 10 July 1873, v. 8, p. 202, 7 cm.) Describes the fertilization of viola tricolor by "a mall fly." W: T. (2709) small fly.

Nectar, its nature, occurrence and uses. (Amer. nat., Nov. 1880, v. 14, p. 803.) Rev. of W: Trelease's work of same title [Rec., 6: D. (2710) 2475].

Ogle, W: The fertilization of certain plants, didynamia. (Pop. sci. rev., Jan. 1870. v. 9, p. 45-56, pl. 56.)

Shows how insects aid in the pollination of species of pedicularis, melampyrum, rhinanthus, teucrium, digitalis, stachys, brunella, scrophularia, gesneria, antirrhinum, thymus and origanum.

W: T. (2711)

Ogle, W: The fertilization of salvia and of some other flowers. (Pop. sci. rev., July 1869. v. 8, p. 261-274, pl. 48-49.)

Shows how pollination is effected by insect agency in Shows how pollmation is elected and salvia, malvaceae, lopezia and delphinium.

W: T. (2712)

Ogle, W: The fertilization of various flowers by insects. . . . (Pop. sci. rev., Apr. 1870. v. 9, p. 160-172, pl. 59.)

Considers the intercrossing of flowers in certain compositee, ericaceae, leguminosae and fumariaceae.

W: T. (2713)

[?Oliver. Daniel.] On dimorphism in primula. (Nat. hist. rev., Jan. 1862. v. 1. no. 5, p. 118, 8 cm.)

Notice of C: Darwin's "On the two forms, or dimorphic condition, in the species of primula... [Rec., W: T. (2714) 2373].

[?Oliver, Daniel.] On the two forms, or dimorphic conditions, in the species of primula, and on their remarkable sexual relations.... (Nat. hist. rev., July 1862, v. 1, no. 7. p. 235-243.)

Rev. of C: Darwin's paper of same title (Journ, Linn, soc., Bot., 21 Nov. 1861, v. 6, p. 77-96) [Rec., 2373].

W: T. (2715)

[?Oliver, Daniel.] On the various contrivances by which British and foreign orchids are fertilized by insects. . . . (Nat. hist. rev.. Oct. 1862, v. 1, no. 8, p. 371-376.)

Rev. of C: Darwin's book of same title [Rec., 2378].

W: T. (2716)

Patterson, Alexander. Bees poisoned by the foxglove. digitalis purpurea. (Gard. chronicle, 31 July 1880. n. s., v. 14, p. 148, 6 cm.)

"After they had fed for some time on the flowers of the foxglove they became stupid, and after leaving the foxglove they went into the flowers of the canterbury bell, and, as a rule, died shortly after."

H: T. (2717)

Notice. (Amer. nat., Sept. 1880, v. 14.

p. 669.)

Does not find nectar in the flowers of tulifa gesneriana, which are visited for pollen by species of halictus.

II': T. (2718)

Peck, C: H. The black spruce. Read before the Albany institute, May 4, 1875. [Albany, 1875?] 21 p., 22×14, t 16×7.5.

Records the attacks, on abies nigra, of a species of adelges (p. 13), of hylurgus ruppennis and of apate ruppennis (p. 16-21).

W: T. (2719)

Potonié. H: Ueber die Blüthenformen von salvia pratensis, L., und die Bedeutung der weiblichen Stöcke. (Sitzungsber. Ges. naturf. Freunde, Berlin. 15 June 1880. no. 6, p. 85-92, 3 fig.)

Crit. rev., by H. Müller, with same title. (Bot. Zeitung, 29 Oct. 1880, v. 38, c. 749-

750, 21 cmi.)

Notes the gynedioicism of this and two other species of *salvia*; states his views concerning their value in securing cross-fertilization by aid of insects.

Riley, C: Valentine. [Capture of moths by physianthus albens.] (Trans. acad. sci. St. Louis, 1 Dec. 1873. v. 3. Proc., p. 115.

S cm.) Records the capture of a number of noctuidae and of sphingidae, especially deilephila lineata. Nevium oleander and oenothera grandiftora are said to capture sphinx moths in Europe.

W: T. (2721) sphinx moths in Europe.

Riley. C: Valentine. Descriptions and nat ural history of two insects which brave the dangers of sarracenia variolaris. (Trans. acad. sci. St. Louis, 1873, v. 3, p. 235-240. 2 fig.)

The insects are vanthoptera semicrocea Guen., and reophaga sarraceniae n. sp. W: T. (2722) sarcophaga sarraceniae n. sp.

Riley, C: Valentine. Supplementary notes on pronuba yuccasella. (Trans. acad. sci. St. Louis, 1873. v. 3. p. 178-180. 1 fig.)

Describes the pupa and pupation, and discusses the range of the insect.

Rust, J. Bees in the peach house. (Gard. chronicle, 7 Feb. 1880, n. s., v. 13, p. 182. 8 cm.)

Bees are profitably kept in forcing houses for peach, etc., to effect the pollination of the flowers,

W: T. (2724)

Ryder, J. A. Honey glands on catalpa leaves. (Proc. acad. nat. sci. Phil., 10 June 1879. v. 31, p. 161, 8 cm.)

Describes the secreting organs. Their nectar is attective to ants. W: T. (2725) tractive to ants.

Osservazioni sugli organi Savi. Pietro. sessuali del genere stapelia. (Memorie della r. accad. delle sci. di Torino, 18 Jan. 1835. v. 38. p. 189-208. t pl.)

A comparative study of the flowers. Pollination is effected by flies which visit the flowers and even oviposit in them.

Sensitive organs in the flowers of asclepiads. (Pop. sci. rev., Jan. 1879. v. 18. n. s., v. 3. p. 89, 6 cm.)

Abstract of J. G. Hunt's "Sensitive organs in *stape-lia*" (Proc. acad. nat. sci. Phil., 27 Aug. 1878, v. 30, p. 202-201) [Rec., 2681]. W: T. (2727) 292-293) [Rec., 2681].

Sheppard, J. Bees and fruit blossoms. (Gard. chronicle, 29 Mar. 1879, n. s., v. 11. p. 408, 14 cm.)

States that bees in forcing houses are injurious by collecting pollen needed for fertilization.

II: T. (2728)

Smith, James E: An introduction to physiological and systematical botany. 3d ed. Lond., Longman [etc.], 1814. 407 p., 22.5 ×13.5. t 15.5×8.5; 15 pl.

Shows (p. 256-258) how insects aid in the pollination of ficus and of aristolochia clematitis, and remarks on their floral activity. Considers (p. 148-151) the insectivorous labits of sarracenia, nepenthes, dionaca and drosera. Discusses (p. 263-265) galls due to insects.

[Spider-bite.] (Springfield [Mass.] d. republican, 26 Aug. 1880, p. 6, col. 5. 1 cm.) An accident insurance company pays a man ten dollars a week because of injuries from a spider's bite.  $G\colon \mathcal{D}$ . (2730)

Stàhala, Johannes. Der Entscheidungskampf wegen der Leistungsfähigkeit der cyprischen Biene. (Deutsch. Bienenfreund. 15 Jan. 1881, jahrg. 17. p. 23-28.)

Defends the raising of Cyprian bees against the objections in N. N's "Besitzt die cyprische Biene entschiedene Vorzüge?" (op. cit., 15 June 1880, jahrg. 16, p. 181) [Rec., 2579]. G: D. (2731)

Stecker, Anton. Ueber die Rückbildung von Sehorganen beiden Arachniden. (Morphologisches Jahrbuch . . . Gegenbaur. 1878. v. 4. p. 279-287. pl. 16.)

In some specimens of *chernes cimicoides* the eye-spet is wanting and the optic nerves are rudimentary. This is wanting and the optic herves are incomposited is attributed to retrograde development. Other points discussed.

H: W. T. (2732)

Strecker. Herman. On a lately described species of limenitis. (Can. entom.. Feb. 1881. v. 13, p. 29-30.)

1881. v. 13, p. 29-30.)

Limentis eros, Edw. (Can. entom., Dec, 1880, v. 12, p. 246-251) [Rec., 2292] was previously described by H. Strecker (Butterflies and moths of North America [Rec., 996], p. 143) as l. misippus var. a floridensis; reasons why the author still regards it to be a variety of l. misippus. G: D. (2733)

Thomas, Cyrus. Notes on orthoptera. (Can. entom., Nov. 1880, v. 12, p. 221-224.)

Notes on occlipoda obliterata (new species), o. caro-lina, anabrus haldemanii, cratypedes putnami and hip-steene lingutus.

G: D. (2734) piscus lineatus.

Thomson, G: M. The flowering plants of New Zealand, and their relation to the insect fauna. (Trans. bot. soc., Edinburgh, 8 July 1880, v. 14, p. 91-105.)

S July 1880, v. 14, p. 91-105.)

The author does not entirely agree with the statements in A. R. Wallace's "Geographical distribution of animals" as to the exceptional rarity of fragrant and nectariferons flowers and of flower-frequenting insects in New Zealand. He states that there are 18 butterflies, many hundred species of moths—all rich in individuals—1300 coleoptera, to hees and "many other families [of hymenoptera] fairly-well represented," many flower-visiting heteroptera, and 90-95 diptera. Neuroptera, or thoptera and homoptera are omitted, as not bearing on the subject. Of 262 species belonging to 132 genera of plants—not including the lower endogens—139 have conspicuous flowers, nectar was found in 99, and 64 were noted as fragrant. 110 are absolutely incapable of self-fertilization, 63 of these being entomophilous; of the remaining 152, 96 are more or less dependent on insects, 8 are fertilized by birds. From his observations, the writer seems inclined to believe that most diptera are attracted to flowers chiefly by smell, while most coleoptera, lepidoptera and hymenoptera are attracted by sight.

W: T. (2735)

Tincture of insect powder. ("Scientific american.") (New remedies. Dec. 1880. ("Scientific v. 9. p. 375. 3 cm.)

Tincture of Persian insect powder [pyrethrum] recommended to be used with an atomizer to kill flies and G: D. (2736) other insects.

Trelease, W: Action of bees toward impatiens fulva. (Bull. Torrey bot. club. Feb. 1880. v. 7. p. 20-21. 11 cm.)

Notes the behavior of a hive hee [apis mellifica] while visiting flowers whose nectaries had not been perforated previously by some other insect, and while visiting perforated flowers.

W: T. (2737)

Trelease. W: Dr. Hermann Müller's Alpenblumen. (Psyche, Feb. [July] 1881, v. 3. p. 175. 25 cm.)

Rev. of H. Müller's "Alpenblumen, ihre Befruchtung durch Insekten, und ihre Anpassungen an dieselben" (Rec., 2175). W: T. (2738)

Trelease. W: The fertilization of salvia splendens by birds. (Amer. nat., April 1881, v. 15. p. 265-269. 1 fig.)

Describes the mode of fertilization of some species salvia by insects.

G: D. (2739) of salvia by insects.

Trelease, W: The fertilization of scrophularia. (Bull. Torrey bot. club. Dec. 1881. v. 8, p. 133-140. 4 figs.)

Shows how crossing is effected by insects, chiefly wasps. Appended is a list of papers in which the pollination of scrophularia is discussed. W: T. (2740)

Trelease, W: Nectar, its nature, occurrence and uses [Rec., 2475].

Notice. (Amer. nat., Sept. 1880, v. 14. p. 669.)

Rev., with full title. (Amer. nat., Nov. 880, v. 14, p. 803.) 1880, v. 14, p. 803.)

Treviranus, Ludolph Christian. Nachträgliche Bemerkungen über die Befruchtung einiger Orchideen. (Bot. Zeitung, 7 Aug.

1863, v. 21, p. 241-243.) Rev., entitled "Dimorphic flowers." (Nat. hist. rev., Apr. 1864, v. 4, no. 14, p.

243-248.)

Considers the floral structure of several species of ophrys, orchis and epipactis, as adapted to self-fertilization, or to crossing by aid of insects. W: T. (2742)

[United States entomological commission. Notice of the work of the.] (Spring. field [Mass.] d. republican. 8 Oct. 1880, p-G: D. (2743) 4. col. 4. 3 cm.)

Wallace, Alfred Russel. Bees killed by tritoma. (Nature, 15 Nov. 1877, v. 17, p.

States that hive bees [apis mellifica] become wedged in the flowers of this plant, while after nectar, and are unable to escape.

W: T. (2744) (2744)

Wax in Chili. (Journ. applied sci., April 1881. v. 12. p. 51. 5 cm.)

Statistics of bees and their wax-production in Chili-G: D. (2745)

Cecropia cocoons Webster, Francis M. punctured by the hairy woodpecker. (Amer. nat., March 1881, v. 15, p. 241-242.) (Separate [General notes; entomology]. from Amer. nat., Mar. 1881, p. 241-242.)

Cocoons of attacus ceropia are picked open and the ma eaten by picus villosus.

G: D. (2746) pupa eaten by ficus villosus.

Wilson. Alexander Stephen. Observations and experiments on ergot. (Trans. bot. soc. Edinburgh, 7 Dec. 1875, v. 12, p. 418-

States (p. 428-429) that the drops of "honey-dew" containing the *sphacelia*-spores are attractive to about six species of *diptera*. House-flies died after drinking the fluid. H': T. (2747)

White. F. Buchanan. The influence of insect agency in the distribution of plants. (Journ. of botany, Jan. 1873, v. 11, n. s., v. 2, p. 11-13.)

Discusses the influence of sphinx convolvuli in the pollination of convolvulus sepium; and of dianthoecia in that of silene and lychnis, upon the green seeds of which the larvae feed. Believes insects to be the agents in the production of hybrids in carduus. Notes some of the flowers more especially frequented by meligethes. Considers the value of the thoracic creest of many nocturnal moths, in retaining pollen of the flowers they visit and cross-fertilize.

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